

MEETING NOTES

Building Research Committee Meeting

Wednesday, May 26, 2010, 8:30am to 12:00pm

Plaza 500 Hotel & Convention Centre – Granville Boardroom

500 West 12th Avenue, Vancouver

In Attendance:

Bill McEwen	Masonry Institute of BC (Chair)	Mark Lawton	Morrison Hershfield
Bob Thompson	Building and Safety Standards Branch	Patrick Roppel	Morrison Hershfield
David Bruce	Ministry of Energy, Mines and Petroleum Resources	Bob Sloat	Surety Association of Canada
Allan Dobie	CMHC	Jieying Wang	FPInnovations – Forintek Division
Bob Mailing	HPO	Jason Teetaert	SMT Research Ltd.
Denisa Ionescu	HPO	Phylroy Lopez	Stantec
Liliana Dominguez	HPO (recording)	Fitsum Tariku	BCIT
Patrick Shek	BOABC	Fred Tai	Simpson Strong-Tie
Richard Kadulski	AIBC	Ernest Kortschak	Dupont
Eric Burnett	RDH Building Engineering	Gordon Monk	BC Hydro
Dave Ricketts	RDH Building Engineering	Gary Lengle	Terasen Gas
Warren Knowles	RDH Building Engineering	Ralph Moore	Travelers Guarantee
Graham Finch	RDH Building Engineering	Bernie Hoing	Travelers Guarantee
Douglas Watts	Read Jones Christoffersen		

Regrets:

Silvio Plescia	CMHC	Ronald Krpan	BCIT
Mark Guavin	GVHBA	Innes Hood	Sheltair Group
Sukh Johal	Canadian Wood Council	Karen Liu	Xero Flor International
John Ruddick	UBC Department of Wood Science	Kimberly Tompkins	Tec Agencies

1. Approval of the Agenda/Additional Items

The meeting was called to order at 8:40 a.m. B. McEwen welcomed everyone to the meeting on behalf of BRC. The May 26, 2010 BRC meeting agenda was approved.

2. Approval of November 25, 2009 Meeting Minutes

The minutes from the November 25, 2009 BRC meeting were approved.

3. Building Enclosure Design Guide – Wood Frame MURBs

D. Ricketts provided an overview of changes that have been incorporated into the Building Enclosure Design Guide – Wood Frame Multi-Unit Residential Buildings. The guide is in final draft review stage and is scheduled for release fall 2010.

4. Energy Consumption and Conservation in Mid and High Rise Residential Buildings

G. Finch provided an update on Phase II of the research study on energy consumption in high-rise multi-unit residential buildings. Phase II of the project assesses pre- and post rehabilitation enclosure performance on energy consumption and the impact of building enclosure improvements. Discussion ensued.

5. **BC Hydro Power Smart – Sustainable Communities**

G. Monk spoke to BC Hydro's development of sustainable community energy solutions through application of leading technologies and practices; guidelines will focus on reduced energy loads, end-use energy efficiency, recover waste heat (for space & DHW loads), and distributed clean sources of electricity generation. A list of current projects was presented, including:

- A building scale demo of high energy electric chromic windows
- Determination of the effective thermal resistance of building envelope assemblies

6. **Field Measurement of Movement in Wood Frame Buildings – Research Proposal**

J. Wang spoke to a research proposal for field measurement of movement in four-, five- and six-storey wood frame buildings. The study will investigate the effectiveness of common design and construction measures in dealing with differential movement.

7. **Current Research Projects**

CMHC

A. Dobie provided an update on CMHC's and Health Canada's radon project and CMHC's EQuilibrium projects in Kamloops and Burnaby.

HPO

D. Ionescu provided an update on current HPO research projects and publications including:

- Attic Ventilation and Moisture Study proposal. This proposed study aims to determine the impact of attic ventilation on the roof assembly, explore the role of the soffit venting in attic moisture in exposed locations and recommend venting strategies. Funding partners are being sought.
- Survey questionnaire on Material Use and Construction Sequencing in Residential Wood-frame Construction. Industry support is sought to collect information from builders and to develop recommendations on good construction sequencing. Questionnaire will be circulated to BRC members.
- ICBEST- International Conference on Building Envelope Systems and Technologies scheduled June 27-30 in Vancouver. NRC and BCBEAC are organizing this event.

BCIT

F. Tariku provided an update on BCIT's energy efficiency and building performance study.

8. **ASHRAE Research Project – Thermal Performance of Building Envelope Details for Mid – and High-rise Buildings – Progress and 3D Thermal Model Calibration**

P. Roppel provided an update of the ASHRAE research project; an overview was given on Task 2 (Model Calibration and Validation) and Task 3 (Catalogue of Details) on the thermal performance of building envelope details for mid-and high- rise buildings. The next step is to develop a catalog of details and assemblies and to include tables and interactive calculations for different configurations. The catalog will be relevant to retrofit and new construction. This ASHRAE data could be later integrated into a book of standards. Funding partners are being sought for this initiative.

9. **Six-storey Wood-frame construction – Results of the Shake Testing in Japan**

F. Tai spoke to the results of the shake table test in Japan for six-storey wood-frame construction, currently the largest building ever tested. Recently two six-storey buildings in Kamloops and Richmond obtained building permits.

10. Open Forum and Discussion – Issues Requiring Research Attention

G. Lengle gave a brief update on a new energuide rating system being review by the EnerGuide review committee.

D. Ricketts spoke to the development of a retrofit window and door guide (single family) to be produced by WDMA, HPO, BC Hydro Power Smart and City of Vancouver.

B. Thompson spoke to upcoming NBC seismic requirements for Part 9. Building and Safety Standards will work with industry and the HPO on conveying information on these changes.

B. Sloat spoke to fire code requirements.

J. Teetart spoke to a research project on polyiso insulation and roofing membranes and shrinkage after installation. The BRC members expressed interested to have J. Teetart speak to this research at the November meeting.

M. Lawton reported issues related to roof sheathing and soffit venting found in townhouse attics.

D. Bruce spoke to FPInnovations' study on the thermal performance of solid wood doors soon to be completed.

G. Monk spoke to geoexchange evaluation of institutional and commercial side buildings.

D. Watts gave a brief update to upcoming changes to the NBC energy efficiency and energy code.

A. Dobie spoke to CMHC's Riverdale NetZero EQUilibrium demonstration project final monitoring results. Perhaps results will be available for presentation at the next BRC meeting. A. Dobie also spoke to the need of finding solutions for the affordability of energy efficiency projects.

P. Shek noted that it appears that there is no need for roughing in the hot solar water piping, not a big uptake on hot water solar projects unless mandated.

P. Lopez spoke to energy models applied to hospital buildings.

J. Wang spoke to a research project on wood decay initiation- a paper on this topic will be presented at the Vancouver June 2010 ICBEST conference.

11. Next BRC Meeting

Meeting scheduled for November 24, 2010.